



AF/2834

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q63175

Yoshihito ASAOKA, et al.

Appn. No.: 09/813,348

Group Art Unit: 2834

Confirmation No.: 3466

Examiner: Julio C. Gonzalez

Filed: March 21, 2001

For: ELECTRICAL POWER SUPPLY SYSTEM FOR A VEHICLE

REPLY BRIEF PURSUANT TO 37 C.F.R. § 1.193(b)

Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the provisions of 37 C.F.R. § 1.193(b), Appellant respectfully submits this Reply Brief to address points raised by the Examiner's Answer of February 26, 2003. Entry of this Reply Brief is respectfully requested.

POINTS RAISED IN EXAMINER'S ANSWER

In the Brief on Appeal filed December 11, 2002, Appellant argued that that Glennon does not teach or suggest a stepping-up DC/DC converter for stepping up a voltage of the battery and applying a stepped-up voltage to the field coil of the alternator, as claimed. Rather, Glennon teaches stepping up a voltage of the battery and applying the stepped-up voltage to the exciter armature winding (54) of the electrical generator (e.g., see claim 1 of Glennon).

In response to Appellant's arguments for patentability, the Examiner (page 7 of the Examiner's Answer) asserts that "the claims are not specific enough so as to differentiate

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between the field coil and an armature coil since an armature coil may be also a field coil since no physical description is given of any of both components or what differentiates, one from the other, as far as voltage controlling purposes is concern[ed]." Appellant respectfully disagrees with the Examiner's assertion since independent claims 1 and 8 do not recite "an armature winding functioning as a field coil" but rather claim "an alternator having an armature winding and a field coil". Claims 1 and 8 further recite "applying a stepped-up voltage to said field coil, ... [and] controlling an output voltage of said alternator by controlling a current of said field coil."

The Examiner asserts that "Glennon teaches that a step up inverter may be controlled (column 4, lines 14-16) and that the armature winding and the field winding are link[ed] directly (see figure 2 & column 3, lines 56 - column 4, line 6)." Further, the Examiner asserts that "[f]rom figure 2, it is shown that as a stepped[-up] voltage may be supplied to the armature winding, such voltage would be also supplied to the field coil (field winding) 48 and it is disclosed that the rectifier 50 and the field winding (field coil) 48 are interconnected." However, the Examiner fails to note that the stepped up voltage is applied to the main generator portion armature windings 54 of the stator (which are not linked to the main field windings 48) rather than the exciter armature windings 52 of the rotor (which are linked to the main field windings 48). Therefore, the Examiner's contention that the "stepped voltage may be supplied to ... the field coil (field winding) 48 [via the exciter armature windings 52]" is simply incorrect since the stepped up voltage is never supplied to the exciter armature windings 52 of the rotor.

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Further, Appellant submits that based on the teachings of Glennon, one of ordinary skill in the art would not have been motivated to modify the power supply apparatus of Kaneyuki in order to provide a stepped-up voltage from the battery 12 to the field coil 3 of the rotor, as the Examiner asserts, since Glennon teaches supplying stepped-up DC power from the battery 26 to the main generator portion armature winding 54 of the stator in order to operate the generator 14 as a motor (rather than a current generator) in a starting mode. Rather, Appellant submits that if one of ordinary skill in the art would have been motivated to modify the power supply apparatus of Kaneyuki based on the teachings of Glennon, the resulting power supply apparatus would provide a stepped-up voltage to the armature windings 2 of the stator.

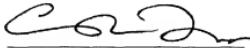
Accordingly, Appellant respectfully submits that independent claims 1 and 8, as well as dependent claims 2-7, 9 and 10, should be allowable because (1) the applied references, alone or in combination, do not teach or suggest all of the features of the claims, and (2) one of ordinary skill in the art would not have been motivated to combine and modify the teachings of the applied references in order to produce the claimed invention.

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CONCLUSION

For the above reasons as well as the reasons set forth in Appellant's Brief on Appeal, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



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